

AMENDMENTS TO THE CLAIMS

Please amend the Claims as follows:

Claims 1 -12 (Cancelled).

13. (Currently Amended) A passivation solution for ~~facilitating the formation of~~ forming an amorphous oxide layer over an implantable device, said passivation solution comprising:

a pH buffering solution; and,

sodium nitrate, wherein said sodium nitrate ~~as an oxygen provider to facilitate~~ provides oxygen in the formation of said amorphous oxide layer over the implantable device.

14. (Currently Amended) The passivation solution of Claim 13, ~~further comprising wherein said~~ pH buffering solution comprises at least one pH buffer chemicals~~chemical~~ selected from the group consisting of sodium bicarbonate, sodium carbonate, sodium hydroxide, and combinations thereof, wherein said pH buffer ~~chemicals~~chemical functions as an oxygen donors~~donor~~.

15. (Currently Amended) The passivation solution of Claim 13, ~~further comprising wherein said~~ pH buffering solution comprises sodium bicarbonate, sodium carbonate and sodium hydroxide, ~~as pH buffer chemicals,~~ in a ratio of approximately 1:1:1.

16. (Currently Amended) The passivation solution of Claim 13, ~~further comprising wherein said~~ pH buffering solution comprises sodium bicarbonate, sodium carbonate and sodium hydroxide, ~~as pH buffer chemicals,~~ in a ratio of approximately 1:1:10.

17. (Currently Amended) The passivation solution of Claim 13, ~~further comprising wherein said~~
pH buffering solution comprises sodium bicarbonate, sodium carbonate and sodium hydroxide, ~~as~~
~~pH buffer chemicals,~~ in a ratio of approximately 1:1:20.

18. (Original) The passivation solution of Claim 13, further comprising nitric acid.

19. (Original) The passivation solution of Claim 13, further comprising hydrochloric acid.

Claims 20-42 (Cancelled).

43. (New) The passivation solution of Claim 14, wherein said passivation solution comprises a composition of approximately 1000g/l of said sodium nitrate, approximately 15g/l of said sodium bicarbonate, approximately 15g/l of said sodium carbonate, and approximately 15g/l of said sodium hydroxide.

44. (New) The passivation solution of Claim 14, wherein said passivation solution comprises said sodium nitrate within a range of approximately 10-2000 g/l.

45. (New) The passivation solution of Claim 44, wherein said passivation solution comprises said sodium bicarbonate within a range of approximately 0.1-50 g/l.

46. (New) The passivation solution of Claim 45, wherein said passivation solution comprises said sodium carbonate within a range of approximately 0.1-50 g/l.

47. (New) The passivation solution of Claim 46, wherein said passivation solution comprises said sodium hydroxide within a range of approximately 0.1-50 g/l.

48. (New) A passivation solution for forming an amorphous oxide layer over an implantable device, said passivation solution comprising:

sodium bicarbonate;

sodium carbonate;

sodium hydroxide; and,

sodium nitrate, wherein said sodium nitrate provides oxygen in the formation of said amorphous oxide layer over the implantable device, and

wherein said passivation solution comprises a pH of approximately 10 or higher.

49. (New) The passivation solution of Claim 48, wherein said amorphous oxide layer is formed over the implantable device by a method comprising the steps of heating said passivation solution to boiling temperature, and thereafter adding the implantable device to said boiling passivation solution to passivate the implantable device for a selected period of time.

50. (New) The passivation solution of Claim 48, wherein said passivation solution comprises a composition of approximately 1000g/l of said sodium nitrate, approximately 15g/l of said sodium bicarbonate, approximately 15g/l of said sodium carbonate, and approximately 15g/l of said sodium hydroxide.

51. (New) The passivation solution of Claim 48, wherein said passivation solution comprises said sodium nitrate within a range of approximately 10-2000 g/l.
52. (New) The passivation solution of Claim 51, wherein said passivation solution comprises said sodium bicarbonate within a range of approximately 0.1-50 g/l.
53. (New) The passivation solution of Claim 52, wherein said passivation solution comprises said sodium carbonate within a range of approximately 0.1-50 g/l.
54. (New) The passivation solution of Claim 53, wherein said passivation solution comprises said sodium hydroxide within a range of approximately 0.1-50 g/l.
55. (New) A passivation solution for forming an amorphous oxide layer over an implantable device, said passivation solution comprising:
- nitric acid; and,
 - sodium nitrate, wherein said sodium nitrate provides oxygen in the formation of said amorphous oxide layer over the implantable device, and
 - wherein said passivation solution comprises a pH of approximately 2 or lower.
56. (New) The passivation solution of Claim 55, wherein said nitric acid solution comprises an approximately 1:1 ratio of concentrated nitric acid to water.
57. (New) The passivation solution of Claim 55, wherein said amorphous oxide layer is formed over the implantable device by a method comprising the steps of heating said passivation solution to

boiling temperature; and thereafter adding the implantable device to said boiling passivation solution to passivate the implantable device for a selected period of time.

58. (New) The passivation solution of Claim 55, wherein said passivation solution comprises a composition of approximately 1000g/l of said sodium nitrate.

59. (New) The passivation solution of Claim 55, wherein said passivation solution comprises said sodium nitrate within a range of approximately 10-2000 g/l.

60. (New) A passivation solution for forming an amorphous oxide layer over an implantable device, said passivation solution comprising:

sodium nitrate, wherein said sodium nitrate provides oxygen in the formation of said amorphous oxide layer over the implantable device;

sodium bicarbonate; and,

diluted hydrochloric acid,

wherein said passivation solution comprises a pH of approximately 6.5 to approximately 7.5.

61. (New) The passivation solution of Claim 60, wherein said amorphous oxide layer is formed over the implantable device by a method comprising the steps of heating said passivation solution to boiling temperature, and thereafter adding the implantable device to said boiling passivation solution to passivate the implantable device for a selected period of time.

62. (New) A passivation solution for forming an amorphous oxide layer over an implantable device, said passivation solution comprising:

sodium nitrate, wherein said sodium nitrate provides oxygen to form said amorphous oxide layer, said amorphous oxide layer comprising a non-stoichiometric oxide having a negative charge.

63. (New) The passivation solution of Claim 62, wherein said amorphous oxide layer further comprises a metallic compound comprising oxygen, water, and hydroxyl molecules.

64. (New) A passivation solution for forming an amorphous oxide surface film over an implantable device, said passivation solution comprising:

a saturated oxygen atmosphere, wherein said saturated oxygen atmosphere provides oxygen to form said amorphous oxide surface film, said amorphous oxide surface film comprising a negative charge thereover to prevent the release of positively-charged ions from the implantable device.

65. (New) The passivation solution of Claim 64, wherein said saturated oxygen atmosphere comprises sodium nitrate.

66. (New) The passivation solution of Claim 64, wherein said saturated oxygen atmosphere comprises a nitrate compound.

67. (New) The passivation solution of Claim 64, wherein said saturated oxygen atmosphere comprises at least one nitrate compound selected from the group consisting of sodium nitrate,

potassium nitrate, ammonium nitrate, calcium nitrate, chromium nitrate, copper nitrate, iron nitrate, lead nitrate, barium nitrate, and combinations thereof.

68. (New) The passivation solution of Claim 64, wherein said saturated oxygen atmosphere comprises at least one pH buffer chemical selected from the group consisting of sodium bicarbonate, sodium carbonate, sodium hydroxide, and combinations thereof.

69. (New) The passivation solution of Claim 64, wherein said saturated oxygen atmosphere comprises at least one pH buffer chemical selected from the group consisting of sodium bicarbonate, sodium carbonate, sodium hydroxide, phosphate compounds, borate compounds, and combinations thereof.

70. (New) The passivation solution of Claim 64, wherein said amorphous oxide surface film comprises amorphous oxide particles on a nanometer to sub-nanometer scale.

71. (New) The passivation solution of Claim 70, wherein the implantable device is heated within said saturated oxygen atmosphere such that said nanometer to sub-nanometer scale of said amorphous oxide particles form at a faster rate of nucleation than growth.

72. (New) The passivation solution of Claim 70, wherein said nanometer to sub-nanometer scale of said amorphous oxide particles results in said amorphous oxide surface film comprising a non-stoichiometric oxide comprising a negative charge.